



**FILED VIA ECFS**

March 19, 2019

Marlene H. Dortch Secretary  
Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20510

Jeffrey Marks  
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North America  
Nokia

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**Re: *Notice of Ex Parte Presentation, Proposal to Lower Minimum Antenna Gain in the 70/80 GHz Band***

WT Docket No. 10-153, *Amendment of Part 101 to Facilitate Wireless Backhaul*;  
GN Docket No. 14-177, IB Docket No. 15-256, RM-11664, WT Docket No. 10-112, IB  
Docket No. 97-95, *Use of Spectrum Bands Above 24 GHz for Mobile Radio Services, et al.*

Dear Ms. Dortch:

On March 18, 2019, representatives from Nokia met with Commission staff of the Wireless Telecommunications Bureau and the Office of Engineering and Technology. All Nokia and Commission attendees are listed below. The attached presentation served as the basis for the meeting, in which the Nokia representatives requested a change to the Part 101 microwave rules governing antenna gain in the 70/80 GHz Band, also known as the E-Band (71-76 GHz and 81-86 GHz).

Specifically, in the meeting, the Nokia representatives demonstrated a key use case for 70/80 GHz backhaul that demands the use of smaller, lighter, lower cost and more visually attractive antennas, ideal for 5G network densification. To achieve the substantial benefits of such smaller-profile antennas in the E-Band, however, will require an amendment to the Commission's Part 101 rules governing microwave to reduce the minimum antenna gain from 43 dBi to 38 dBi.<sup>1</sup> The 38 dBi minimum would provide the industry with the necessary flexibility

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<sup>1</sup> See Section 101.115(b)(2) (table).

to deploy lower gain antennas where the use case demands, while also having the discretion to deploy higher gain antennas as applicable.

While the use cases for such flexibility in terms of antenna gain are becoming increasingly necessary to enable the types of 5G network deployments envisioned in the very near term, the request for such a rule change is far from new. Indeed, the Fixed Wireless Communications Coalition had the foresight to request such a rule change as far back as 2012 and has reiterated the growing need for smaller antennas, including a requested minimum gain of 38 dBi.<sup>2</sup> Nokia respectfully requests that the Commission act without delay to implement this rule change as a key pillar to enabling backhaul solutions uniquely suited to ongoing 5G deployment.

Please contact the undersigned with any questions in connection with this submission.

Respectfully submitted,

*/s/ Jeffrey A. Marks*

Jeffrey A. Marks  
Head of Regulatory Affairs  
North America

**Nokia Attendees**

Paolo Di Prisco  
Mario Giovanni Frecassetti  
Jeffrey Marks  
Prakash Moorut

cc: **Commission Attendees**

Stephen Buenzow  
Bahman Badipour  
Michael Ha  
Ira Keltz  
Charles Mathias  
Charles Oliver  
Nicholas Oros  
Matthew Pearl  
Jamison Prime  
John Schauble  
Blaise Scinto  
Becky Schwartz

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<sup>2</sup> See, e.g., Letter from Cheng-yi Liu and Mitchell Lazarus, Fletcher, Heald, and Hildreth (Counsel for the Fixed Wireless Communications Coalition), to Marlene Dortch, FCC, WT Docket No. 10-153, GN Docket No. 14-177, *et al.*, at 3&n.5 and Appendix (filed Feb. 13, 2018).